

WHAT IS CLAIMED IS:

1. A sheet cassette comprising:

a tray main body part; and

a tray expansion/contraction part supported by the tray main body part and configured to slide relative to the tray main body part to a cassette expanded position where the sheet cassette is in an expanded state and a cassette contracted position where the sheet cassette is in a contracted state, the tray expansion/contraction part comprising a rear end regulation member configured to be moved in a direction in which recording media stacked in the sheet cassette are fed to regulate rear ends of the recording media and a sliding guide part configured to support the rear end regulation member to freely slide and to form a moving path of the rear end regulation member.

2. The sheet cassette according to claim 1, further comprising:

an auxiliary member that is configured to be attached, when the tray expansion/contraction part is in the cassette expanded position, to the sliding guide part of the tray expansion/contraction part to extend a length of the moving path of the rear end regulation member of the tray expansion/contraction part between the tray expansion/contraction part and the tray main body part and is configured to be detached from the sliding guide part of the tray expansion/contraction part when the tray expansion/contraction part is in the cassette contracted position.

3. The sheet cassette according to claim 1, further comprising:

a fall-off prevention member provided to an end part of the sliding guide part of the tray expansion/contraction part at the side of the tray main body part and configured to prevent the rear end regulation member from falling off the sliding guide part.

4. The sheet cassette according to claim 1, further comprising:

a reinforcing member provided to a backside surface of the tray expansion/contraction part.

5. The sheet cassette according to claim 2, wherein the auxiliary member is configured, when the cassette is in the expanded state, to connect, at one side end thereof, with an end of the sliding guide part of the tray expansion/contraction part in the direction in

which the recording media are fed and to contact the tray main body part at the other side end thereof.

6. The sheet cassette according to claim 3, wherein the fall-off prevention member is disposed across the sliding guide part of the tray expansion/contraction part such that ends thereof engage the sliding guide part.

7. The sheet cassette according to claim 4, wherein the reinforcing member extends across the sliding guide part of the tray expansion/contraction part and is integrated with the tray expansion/contraction part at both ends thereof in a direction in which the reinforcing member is extended and is configured to prevent the tray expansion/contraction part from extending in a direction orthogonal to a direction in which the tray expansion/contraction part slides.

8. The sheet cassette according to claim 1, wherein the tray main body part comprises holding parts configured to hold the tray expansion/contraction part at the cassette expanded position and the cassette contracted position and an indication part configured to differentiate a state in which the tray expansion/contraction part is held by the tray main body part from a state in which the tray expansion/contraction part is released from being held by the tray main body part.

9. The sheet cassette according to claim 8, wherein the tray expansion/contraction part comprises engaging members, and the holding parts of the tray main body part comprise locking parts configured to engage with and disengage from the engaging members of the tray expansion/contraction part, and the indication part is configured to differentiate a state in which the tray expansion/contraction part is held by the tray main body part from a state in which the tray expansion/contraction part is released from being held by the tray main body part according to engaging states of the engaging members of the tray expansion/contraction part and the locking parts of the tray main body part.

10. A sheet feeding device comprising:
a sheet cassette configured to receive recording media; and
a feeding roller configured to feed the recording media in the sheet cassette,

wherein the sheet cassette comprises a tray main body part, and a tray expansion/contraction part supported by the tray main body part and configured to slide relative to the tray main body part to a cassette expanded position where the sheet cassette is in an expanded state and a cassette contracted position where the sheet cassette is in a contracted state, the tray expansion/contraction part comprising a rear end regulation member configured to be moved in a direction in which the recording media stacked in the sheet cassette are fed to regulate rear ends of the recording media and a sliding guide part configured to support the rear end regulation member to freely slide and to form a moving path of the rear end regulation member.

11. The sheet feeding device according to claim 10, wherein the sheet cassette comprises an auxiliary member that is configured to be attached, when the tray expansion/contraction part is in the cassette expanded position, to the sliding guide part of the tray expansion/contraction part to extend a length of the moving path of the rear end regulation member of the tray expansion/contraction part between the tray expansion/contraction part and the tray main body part and is configured to be detached from the sliding guide part of the tray expansion/contraction part when the tray expansion/contraction part is in the cassette contracted position.

12. The sheet feeding device according to claim 10, wherein the sheet cassette comprising a fall-off prevention member provided to an end part of the sliding guide part of the tray expansion/contraction part at the side of the tray main body part and configured to prevent the rear end regulation member from falling off the sliding guide part.

13. The sheet feeding device according to claim 10, wherein the sheet cassette comprises a reinforcing member provided to a backside surface of the tray expansion/contraction part.

14. The sheet feeding device according to claim 11, wherein the auxiliary member is configured, when the sheet cassette is in the expanded state, to connect, at one side end thereof, with an end of the sliding guide part of the tray expansion/contraction part in the direction in which the recording media are fed and to contact the tray main body part at the other side end thereof.

15. The sheet feeding device according to claim 12, wherein the fall-off prevention member is disposed across the sliding guide part of the tray expansion/contraction part such that ends thereof engage the sliding guide part.

16. The sheet feeding device according to claim 13, wherein the reinforcing member extends across the sliding guide part of the tray expansion/contraction part and is integrated with the tray expansion/contraction part at both ends thereof in a direction in which the reinforcing member is extended and is configured to prevent the tray expansion/contraction part from extending in a direction orthogonal to a direction in which the tray expansion/contraction part slides.

17. The sheet feeding device according to claim 10, wherein the tray main body part comprises holding parts configured to hold the tray expansion/contraction part at the cassette expanded position and the cassette contracted position and an indication part configured to differentiate a state in which the tray expansion/contraction part is held by the tray main body part from a state in which the tray expansion/contraction part is released from being held by the tray main body part.

18. The sheet feeding device according to claim 17, wherein the tray expansion/contraction part comprises engaging members, and the holding parts of the tray main body part comprise locking parts configured to engage with and disengage from the engaging members of the tray expansion/contraction part, and the indication part is configured to differentiate a state in which the tray expansion/contraction part is held by the tray main body part from a state in which the tray expansion/contraction part is released from being held by the tray main body part according to engaging states of the engaging members of the tray expansion/contraction part and the locking parts of the tray main body part.

19. An image forming apparatus, comprising:
an image forming device configured to form an image on a photoconductor; and
a sheet cassette configured to feed recording media to receive the image from the photo conductor, the sheet cassette comprising a tray main body part, and a tray expansion/contraction part supported by the tray main body part and configured to slide relative to the tray main body part to a cassette expanded position where the sheet cassette is in an expanded state and a cassette contracted position where the sheet cassette is in a

contracted state, the tray expansion/contraction part comprising a rear end regulation member configured to be moved in a direction in which the recording media stacked in the sheet cassette are fed to regulate rear ends of the recording media and a sliding guide part configured to support the rear end regulation member to freely slide and to form a moving path of the rear end regulation member.

20. The image forming apparatus according to Claim 19, wherein the sheet cassette comprises an auxiliary member that is configured to be attached, when the tray expansion/contraction part is in the cassette expanded position, to the sliding guide part of the tray expansion/contraction part to extend a length of the moving path of the rear end regulation member of the tray expansion/contraction part between the tray expansion/contraction part and the tray main body part and is configured to be detached from the sliding guide part of the tray expansion/contraction part when the tray expansion/contraction part is in the cassette contracted position.

21. The image forming apparatus according to claim 19, wherein the sheet cassette comprises a fall-off prevention member provided to an end part of the sliding guide part of the tray expansion/contraction part at the side of the tray main body part and configured to prevent the rear end regulation member from falling off the sliding guide part.

22. The image forming apparatus according to claim 19, wherein the sheet cassette comprises a reinforcing member provided to a backside surface of the tray expansion/contraction part.

23. The image forming apparatus according to claim 20, wherein the auxiliary member is configured, when the sheet cassette is in the expanded state, to connect, at one side end thereof, with an end of the sliding guide part of the tray expansion/contraction part in the direction in which the recording media are fed and to contact the tray main body part at the other side end thereof.

24. The image forming apparatus according to claim 21, wherein the fall-off prevention member is disposed across the sliding guide part of the tray expansion/contraction part such that ends thereof engage the sliding guide part.

25. The image forming apparatus according to claim 22, wherein the reinforcing member extends across the sliding guide part of the tray expansion/contraction part and is integrated with the tray expansion/contraction part at both ends thereof in a direction in which the reinforcing member is extended and is configured to prevent tray expansion/contraction part from extending in a direction orthogonal to a direction in which the tray expansion/contraction part slides.

26. The image forming apparatus according to claim 19, wherein the tray main body part comprises holding parts configured to hold the tray expansion/contraction part at the cassette expanded position and the cassette contracted position and an indication part configured to differentiate a state in which the tray expansion/contraction part is held by the tray main body part from a state in which the tray expansion/contraction part is released from being held by the tray main body part.

27. The image forming apparatus according to claim 26, wherein the tray expansion/contraction part comprises engaging members, and the holding parts of the tray main body part comprise locking parts configured to engage with and disengage from the engaging members of the tray expansion/contraction part, and the indication part is configured to differentiate a state in which the tray expansion/contraction part is held by the tray main body part from a state in which the tray expansion/contraction part is released from being held by the tray main body part according to engaging states of the engaging members of the tray expansion/contraction part and the locking parts of the tray main body part.

28. The image forming apparatus according to claim 19, further comprising:
a plurality of openings below the image forming device and configured to receive a plurality of the sheet cassettes.

29. A sheet cassette comprising:
a tray main body part; and
means for sliding relative to the tray main body part to a cassette expanded position where the sheet cassette is in an expanded state and a cassette contracted position where the sheet cassette is in a contracted state, the means comprising a rear end regulation member configured to be moved in a direction in which recording media stacked in the sheet cassette are fed to regulate rear ends of the recording media and a sliding guide part configured to

support the rear end regulation member to freely slide and to form a moving path of the rear end regulation member.

30. A method of expanding and contracting a sheet cassette, comprising:

providing a tray main body part; and

providing a tray expansion/contraction part supported by the tray main body part and configured to slide relative to the tray main body part to a cassette expanded position where the sheet cassette is in an expanded state and a cassette contracted position where the sheet cassette is in a contracted state, the tray expansion/contraction part comprising a rear end regulation member configured to be moved in a direction in which recording media stacked in the sheet cassette are fed to regulate rear ends of the recording media and a sliding guide part configured to support the rear end regulation member to freely slide and to form a moving path of the rear end regulation member.